Our Reference No.: 15499.185

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant	:	Larry Stevens	
Appl. No.	:	09/228,325	
Filed	:	January 11, 1999	Group Art Unit: 3711
Title	:	SYSTEM AND METHOD FOR BONDING AN ACRYLIC SURFACE TO A FRAME	
Examiner	:	Michael S. Chambers	
Confirm. No.:	:	8737	
Customer No.	:	22,913	

AMENDED APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant timely filed an Appeal Brief on January 9, 2007. A Notification of Non-Compliant Appeal Brief was mailed on August 28, 2007, stating that the Evidence Appendix was missing from the Appeal Brief. In a telephone call with the United States Patent and Trademark Office on September 24, 2007, Patent Appeal Center Specialist Hinton confirmed that, when responding to this Notification of Non-Compliant Appeal Brief, Appellant must submit the Evidence Appendix and, although not required, Applicant may submit an Amended Appeal Brief with amended arguments. Accordingly, Applicant submits this Amended Appeal Brief with the Evidence Appendix and amended arguments.

Appellant notes that, after the Appeal Brief was filed, the United States Supreme Court

issued the *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. __, 82 U.S.P.Q.2d 1385 (2007) decision. The U.S. Patent and Trademark Office also issued its "Examination Guidelines for Determining Obviousness under 35 U.S.C. § 103 in View of the Supreme Court Decision in *KSR Int'l Co. v. Teleflex Inc.*" This Amended Appeal Brief includes both an analysis and application of *KSR Int'l Co. v. Teleflex Inc.*

In this case, the Final Office Action rejected all the pending claims based upon obviousness under Section 103. In response to the Notification of Non-Compliant Appeal Brief, Appellant submits this Amended Appeal Brief including the requested Evidence Appendix and arguments rebutting the Section 103 rejection. This Amended Appeal Brief complies with the requirements set forth in 37 C.F.R. § 41.37. Appellant appeals the rejection of all of the pending claims.

The Commissioner is authorized to charge payment of any additional fees associated with this communication, which have not otherwise been paid, to Deposit Account No. 23-3178. If any additional extension of time is required, which have not otherwise been requested, please consider this a petition therefore and charge any additional fees that may be required to Deposit Account No. 23-3178.

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I. Real Party in Interest

The real party in interest is Lifetime Products, Inc., the assignee of record.

II. Related Appeals and Interferences

This application, serial no. 09/228,325, was the subject of Appeal No. 2002-0980, which was heard on February 19, 2003. A decision was rendered by the Board on March 27, 2003 and it reversed the decision of the examiner finally rejecting the appealed claims.

A copy of the Board decision is included in the appendix as required by 37 C.F.R. §41.37(c)(1)(x).

III. Status of Claims

The Final Office Action dated February 9, 2006 rejected Claims 1, 2, 5-18 and 44-53, which are all the pending claims.

Specifically, the Office Action rejected Claims 1, 2, 5, 6, 14 and 15 under 35 U.S.C. § 103(a) as being unpatentable over applicant's admitted prior art in view of U.S. patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093. The Office Action rejected Claims 44-53 in view of the Claim 1 rejection discussed above. Claims 2, 5-18, and 50-53 were also rejected under Section 103(a).

Appellant appeals the rejection of all the pending claims. That is, Applicant appeals the rejection of Claims 1, 2, 5-18 and 44-53.

IV. Status of Amendments

No Response to the Final Office Action mailed on February 9, 2006 was filed. Thus, Appellant believes the claims remain as amended in the Amendment and Response to Office Action filed on December 1, 2005.

V. Summary of Claimed Subject Matter

By way of background, the presently claimed invention is directed towards an acrylic basketball backboard assembly that is sized and configured for playing the game of basketball. Prior to the present invention, acrylic basketball backboards were bonded to a backboard frame structure using double-sided tape with a foam center.[1] Double-sided tape with a foam center was used because it adequately bonded the backboard to the support frame and provided sufficient flexibility to dissipate impact energy from the backboard to the frame.[2] Importantly, double-sided tape with a foam center was used because if the bond between the backboard and frame was too rigid, then the backboard can fracture.[3] Double-sided tape was also used because if the bond was too loose, then the adhesion would fail.[4] Thus, double-sided tape with a foam center provided the required cushioning and flexibility to prevent the acrylic backboard from cracking and breaking, and sufficient adhesion to keep the backboard attached to the frame.

The presently claimed basketball backboard assembly includes a basketball backboard frame

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[1] *See* U.S. patent application serial no. 09/228,325 ("'325 application"), page 2, lines 3-8; *see also* U.S. patent no. 5,839,982 issued to Hying, et al., col. 2, lines 13-16.

[2] *See* '325 application, page 1, lines 21-25.

[3] *See* '325 application, page 1, line 26 to page 2, line 1.

[4] *See* '325 application, page 2, lines 1-2.

structure and an acrylic backboard that are bonded together with an elastomeric adhesive, such as a catalyzed elastomeric adhesive.[5] The claimed elastomeric adhesive provides sufficient adhesion and flexibility to allow the acrylic backboard and backboard frame structure to be bonded directly together, and allows the backboard assembly to be used for playing the game of basketball.[6] Significantly, the claimed elastomeric adhesive eliminates the need for the previously required double-sided tape with a foam center. Silicone adhesive is a currently preferred elastomeric adhesive because of its excellent adhesion and flexibility and low cost.[7]

The presently claimed invention is also directed towards the bond gap, which is the gap between the bonding surfaces of the frame and the acrylic backboard that is filled with the elastomeric adhesive. Appellant found that the bond gap affects adhesion and flexibility, which are significant factors when attaching the acrylic backboard to a rigid frame. Applicant determined a currently preferred adhesive bond gap is in the range from about 2 to 2.5 mm.[8]

Applicant also determined a bond gap spacer positioned between the frame bonding surfaces and the acrylic backboard may be used to control the size of the bond gap. A variety of different bond gap spacers can be used to control the size of the bond gap, such as spherical beads, including glass microspheres and plastic beads, and weed trimmer line.[9] Applicant determined that glass microspheres having a diameter in the range from about 2 to 2.5 mm (0.08 to 0.1 inch) function very

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[5] *See* '325 application, page 2, lines 22-27; page 3, lines 9-10.

[6] *See* '325 application, page 1, lines 21-25; page 3, lines 15-17.

[7] See '325 application, page 2, line 27; page 3, lines 1-2; claim 14.

[8] *See* '325 application, page 3, lines 23-24; claims 2 and 18.

[9] *See* '325 application, page 4, lines 2-4; page 6, lines 6-11; claims 7, 8, 9, 14, 16 and 17.

well.[10] Applicant further determined that the bond gap spacer preferably has a rigid structure with a desired thickness in order to maintain the bond gap between the frame bonding surfaces and the acrylic backboard.[11]

In addition, Applicant disclosed particular details regarding the type of elastomeric adhesive that may be used to bond the acrylic backboard and frame. For example, Applicant disclosed that the elastomeric adhesive may be a two-part catalyzed adhesive in which the two parts are combined in a ratio to provide a set time in the range from about 5 minutes to 1 hour, and more preferably from about 7 to 15 minutes.[12]

A. Independent Claim 1

Independent Claim 1 is directed to a basketball backboard assembly that is sized and configured for playing the game of basketball.[13] The basketball backboard assembly comprises a basketball backboard frame structure having a bonding surface and an acrylic basketball backboard having a bonding surface.[14] A catalyzed elastomeric adhesive is sandwiched between the frame bonding surface and the backboard bonding surface.[15] The elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in

[10] *See* '325 application, page 6, lines 8-10; claims 10 and 18.

[11] *See* '325 application, page 6, lines 3-6.

[12] *See* '325 application, page 6, lines 21-24; claims 5, 6, 14 and 15.

[13] *See* '325 application, page 1, lines 5-9; page 2, lines 22-24.

[14] *See* '325 application, page 4, lines 16-20.

[15] *See* '325 application, page 4, lines 20-21; page 4, line 25; page 6, lines 17-18; page 10, lines 19-20.

the game of basketball.[16]

B. Independent Claim 14

Independent Claim 14 is directed to a basketball backboard assembly that is sized and configured for playing the game of basketball.[17] The basketball backboard assembly comprises a metal basketball backboard frame structure having a bonding surface and an acrylic basketball backboard having a bonding surface.[18] A catalyzed silicone adhesive sandwiched between the frame bonding surface and the backboard bonding surface.[19] The silicone adhesive is configured to provide a set time in the range from about 5 minutes to 1 hour.[20] The silicone adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surfaces to be used in the game of basketball.[21] One or more bond gap spacers located between the frame bonding surface and the backboard bonding surface to provide the bond gap.[22]

C. Independent Claim 44

Independent Claim 44 is directed to a basketball backboard assembly comprising a basketball backboard frame and a basketball backboard constructed from acrylic.[23] A catalyzed silicone-based

[16] *See* '325 application, page 10, lines 25-26.

[17] *See* '325 application, page 1, lines 5-9; page 2, lines 22-24.

[18] *See* '325 application, page 4, lines 16-20.

[19] *See* '325 application, page 4, lines 20-21; page 4, line 25; page 6, lines 17-18; page 10, lines 19-20.

[20] *See* '325 application, page 3, lines 13-14; page 6, lines 22-24.

[21] *See* '325 application, page 10, lines 25-26.

[22] *See* '325 application, page 3, line 25 to page 4, line 2; page 6, lines 1-3.

[23] *See* '325 application, page 2, lines 22-24; page 4, lines 12-14.

adhesive connects the basketball backboard and the basketball backboard frame and is positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.[24]

D. Independent Claim 46

Independent Claim 46 is directed to a basketball backboard assembly comprising a basketball backboard frame and a basketball backboard.[25] A catalyzed elastomeric adhesive connects the basketball backboard and the basketball backboard frame and is positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.[26]

E. Independent Claim 48

Independent Claim 48 is directed to a basketball backboard assembly comprising a basketball backboard frame and a basketball backboard.[27] A catalyzed elastomeric adhesive connects the basketball backboard and the basketball backboard frame and is positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.[28]

F. Independent Claim 50

Independent Claim 50 is directed to a basketball backboard assembly comprising a basketball

[24] *See* '325 application, page 4, lines 20-21; page 4, line 25; page 6, lines 17-18; page 10, lines 19-20.

[25] *See* '325 application, page 2, lines 22-24; page 4, lines 12-14.

[26] *See* '325 application, page 4, lines 20-21; page 4, line 25; page 6, lines 17-18; page 10, lines 19-20.

[27] *See* '325 application, page 2, lines 22-24; page 4, lines 12-14.

[28] *See* '325 application, page 4, lines 20-21; page 4, line 25; page 6, lines 17-18; page 10, lines 19-20.

backboard frame and a basketball backboard.[29] A silicone-based adhesive connects the basketball backboard and the basketball backboard frame and is positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.[30]

G. Independent Claim 52

Independent Claim 52 is directed to a basketball backboard assembly comprising a basketball backboard frame and a basketball backboard.[31] A silicone-based adhesive connects the basketball backboard and the basketball backboard frame and is positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.[32] One or more bond gap spacers positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame to provide a defined bond gap.[33]

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[29] *See* '325 application, page 2, lines 22-24; page 4, lines 12-14.

[30] *See* '325 application, page 4, lines 20-21; page 4, line 25; page 6, lines 17-18; page 10, lines 19-20.

[31] *See* '325 application, page 2, lines 22-24; page 4, lines 12-14.

[32] *See* '325 application, page 4, lines 20-21; page 4, line 25; page 6, lines 17-18; page 10, lines 19-20.

[33] *See* '325 application, page 3, line 25 to page 4, line 2; page 6, lines 1-3.

VI. Grounds of Rejection to be Reviewed on Appeal

Issue 1: Did the Examiner fail to establish a *prima facie* case of obviousness of independent Claims 1, 14, 44, 46, 48, 50 and 52 where there is no evidence of any teaching, suggestion, motivation or other reason why a person of ordinary skill would have combined the references to arrive at the claimed invention?

Issue 2: Whether Claims 1, 2, 5-18 and 44-53 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; Dow Corning Data Sheet Q3-6093; Official Notice taken by the Examiner; and Ichemco.

(a) Whether Claims 1, 2, 5, 6, 14 and 15 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; Dow Corning Data Sheet Q3-6093.

(b) Whether Claims 7-13 and 16-18 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093 in view of Official Notice.

(c) Whether Claims 44 and 45 are unpatentable under 35 U.S.C. § 103(a) over

applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.

(d) Whether Claims 46 and 47 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.

(e) Whether Claims 48 and 49 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.

(f) Whether Claims 50 and 51 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.

(g) Whether Claims 52 and 53 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622

issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.

(h) Whether Claims 50-53 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of Ichemco, web page downloaded on 6/24/05, http://www.ichemco.it/ENG/tab/siliconepsa.asp (cited by Examiner Chambers in non-final Office Action mailed on July 1, 2005).

VII. Argument

A. Issue 1: Did the Examiner fail to establish a *prima facie* case of obviousness of independent Claims 1, 14, 44, 46, 48, 50 and 52 where there is no evidence of any teaching, suggestion, motivation or other reason why a person of ordinary skill would have combined the references to arrive at the claimed invention?

The initial burden is on the Examiner to present evidence from which it can be concluded that a *prima facie* case of obviousness has been established.[34] Here, the Examiner has not met his initial burden because there is no teaching, suggestion, motivation or other reason why a person of ordinary skill would have combined the cited references to arrive at the claimed invention.

In fact, the issues in this appeal were previously decided in Appeal No. 2002-0980, which was an earlier appeal by Applicant for this same application.[35] In this earlier appeal, the Board reversed the decision of the Examiner because the Examiner failed to establish a *prima facie* case of obviousness.

[34] *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1976), *cert. denied*, 389 U.S. 1057 (1968); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

In this case, the Examiner cited various prior art references that allegedly disclose isolated elements of the claims but once again failed to establish a *prima facie* case of obviousness. The Examiner failed to establish a *prima facie* case of obviousness because there is no evidence of any teaching, suggestion, motivation or other reason why a person of ordinary skill would have combined the references to arrive at the claimed invention. The Supreme Court, in *KSR Int'l Co. v. Teleflex Inc.*, stated the importance of identifying a reason why a person of ordinary skill would have made the claimed invention:

> [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.[36]

As discussed below, the reasoning supplied by the Examiner does not establish a *prima* facie showing of obviousness.

In addition, the cited references fail to suggest the desirability of the claimed combination. As discussed below, the cited references disclose, *inter alia*, a ball with unpredictable bounce characteristics (U.S. patent no. 6,056,622 issued to Chung); a hockey stick with a flexible net for catching and stopping a puck in both the forehand and backhand position (U.S. patent no. 3,809,401 issued to Hankele); and a safety tip of a water sport board, such as a surf board, for reducing or preventing injury to a user upon impact with the nose portion of the board (U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.). Significantly, none of these cited references teach, suggest or disclose replacing double-sided adhesive tape with an elastomeric adhesive. These

[35] *Ex parte Stevens*, Appeal No. 2002-0980 (Bd. Pat. App. & Inter. March 27, 2003) [Paper No. 26].

cited references also do not teach, suggest or disclose using an elastomeric adhesive to bond an acrylic backboard to a basketball backboard frame. In addition, these cited references do not teach, suggest or disclose using an adhesive that "provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball." Further, these cited references do not teach, suggest or disclose that an elastomeric adhesive would provide the required cushioning, adhesion and flexibility to bond an acrylic backboard to a backboard frame.

Further, the cited Dow Corning Data Sheet Q3-6093 does not teach, suggest or disclose using an elastomeric adhesive instead of double-sided tape with a foam center in any application, much less to bond an acrylic backboard to a rigid frame. In addition, the Dow Corning Data Sheet Q3-6093 does not teach, suggest or disclose that an elastomeric adhesive is "equivalent" to double-sided tape with a foam center, that it can used to bond an acrylic basketball backboard to a basketball backboard frame, or that it "provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball." The Dow Corning Data Sheet Q3-6093 further does not disclose that an elastomeric adhesive would provide the required cushioning, adhesion and flexibility to bond an acrylic backboard to a frame.

The cited prior art references merely show various elements of the claimed invention, but there is no teaching, suggestion, motivation or other reason to combine these elements into the claimed invention.[37] Here, the Examiner appears to take the position that because some type of

[36] *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. ___ (2007) (emphasis added).

[37] The teaching, suggestion, motivation (TSM) test remains a valid approach after KSR, *See KSR* at 136 ("When it first established the requirement of demonstrating a teaching, suggestion, or motivation to combine known elements in order to show that the combination is obvious, the Court of Customs and Patent Appeals captured a helpful insight….There is no necessary inconsistency between the idea underlying the TSM test and the *Graham* analysis.")..

adhesive was previously used in connection with sporting goods, it would have been obvious to substitute silicone adhesive for double-sided tape with a foam center to attach an acrylic backboard to a basketball backboard frame. Significantly, none of the sporting goods cited by the Examiner are related to basketball backboards or are used in the same environment as basketball backboards, and none of the references address the specific cushioning, adhesion and flexibility requirements to bond an acrylic backboard to a frame. The Examiner also appears to conclude that it would have been obvious to try any number of prior art adhesives until one possibly arrived at a successful result. Merely because double-sided tape and adhesives previously existed does not mean that it would have been obvious to replace one with the other to arrive at the claimed invention.

The Examiner's position defies common sense. At the time of Applicant's invention, common sense made clear that a basketball backboard had to be securely connected to the backboard frame to prevent the backboard from falling out of the frame. If the backboard was dislodged from the frame, it could break and an obvious safety concern was created. Common sense also dictated that the foam center of the double-sided tape was required between the backboard and frame because acrylic is a rather brittle material that can fracture or shatter relatively easily. The foam center was required to dissipate energy or forces applied to the backboard, such as when a basketball strikes the backboard or when dunking a basketball, and prevent the backboard from breaking or cracking due to these forces. In order to provide the required cushioning, adhesion and flexibility, common sense said the double-sided tape with a foam center was required between the brittle acrylic backboard and frame.[38]

[38] *See* '325 application, page 2, lines 3-8; *see also* U.S. patent no. 5,839,982 issued to Hying, et al., col. 2, lines 13-

The references cited by the Examiner do not contradict the common sense at the time of the invention. The cited references also do not teach, suggest or disclose replacing the double-sided tape of a basketball backboard assembly with an adhesive to achieve the unique properties and advantages disclosed by Applicant. The cited references also provide no indication of which parameters are critical to successful connection of an acrylic backboard to a frame, and no direction as to which of many possible choices would be successful. Thus, the cited references fail to teach, suggest or disclose the claimed invention.

In addition, the Examiner has not pointed out where the cited references teach using the particular adhesive of the Dow Corning Data Sheet Q3-6093. The Examiner makes the unsupported allegations that "those knowledgeable in the sporting goods adhesion art were aware of silicon adhesives and their suitability and advantages when considering cost, cushioning and superior adhesive qualities where sporting goods will be used under severe conditions, such as outdoors."[39] The Examiner also makes the unsupported allegations that using the particular adhesive of Dow Corning Data Sheet Q3-6093 would "lower production costs and manufacture a more durable backboard in order to increase the player's satisfaction with the product."[40] Significantly, the Examiner provided no evidence to support these conclusory statements.[41] For example, nowhere does the Examiner provide any evidence that the adhesive disclosed in the Dow Corning Data Sheet Q3-6093 provides "cushioning" or "superior adhesive qualities" or that it should be used with

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[39] *See* Final Office Action dated 02/09/2006 at page 3.

[40] *Id.*

[41] *See KSR* at 1396 ("To facilitate review, [the obviousness] analysis should be made explicit.") (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

"sporting goods" in "severe conditions, such as outdoors." Importantly, the Examiner also does not provide any evidence that the adhesive of the Dow Corning Data Sheet Q3-6093 would provide the required cushioning between the acrylic backboard and frame, or sufficient adhesion and flexibility to bond the acrylic backboard and frame to allow the backboard assembly to play the game of basketball.

The Examiner, citing the present application's Background section, stated that "[t]he applicant also admits that the use of double-sided tape was inadequate in that it was costly and time consuming" and reasoned that "[a] workman in the art in view of this deficiency, would have looked for other equivalent but better means of attachment in the adhesive art."[42] Tellingly, the Examiner provided no evidence that, **prior to Applicant's invention**, one of ordinary skill in the art would have considered conventional double-sided tape systems deficient.[43] Applicant determined that double-side tape systems were deficient and that an elastomeric adhesive, contrary to what one of ordinary skill in the art would have expected, provided the required cushioning, adhesion and flexibly to bond an acrylic backboard to a frame. Because the Examiner has not articulated a reason or rationale that is support by any evidence or common sense, this obviousness rejection should be reverse by the Board.

Additionally, this is not the case of combining prior art elements according to known methods to yield a predictable result. Here, at the time of the invention, the predicted result of

[42] *See* Final Office Action dated 02/09/2006 at page 2 (emphasis added).

[43] *See* USPTO Examination Guidelines for Determining Obviousness under 35 U.S.C § 103 in view of the Supreme Court Decision in *KSR International Co. v. Teleflex, Inc.*, 550 U.S. __, 82 USPQ2d 1385 (2007) ("In formulating a rejection under 35 U.S.C. § 103, the examiner should focus on the state of the art and not impermissible hindsight, e.g. applicant's disclosure." *See KSR* at 1397(citation omitted)).

bonding an acrylic backboard directly to the frame was that the backboard would break because there was nothing to dissipate the energy applied to the backboard and cushion the impact, which was previously provided by the double-sided tape with a foam center. Thus, one of ordinary skill in the art would not have directly bonded the backboard to the frame because the backboard would have been expected to break.

This is also not the case where, at the time of the invention, one of ordinary skill in the art would have substituted an adhesive for the double-sided tape. As discussed above, if adhesive was substituted for the double-sided tape, the expected result would have been for the backboard to break. Thus, both common sense and the expected result of connecting the backboard directly to the frame indicated that the backboard would break.

Further, the prior art taught away from Applicant's claimed invention because the prior art taught that cushioning and energy dissipation was required between the backboard and frame. The Supreme Court explained that "when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious."[44] In this case, the prior art taught that double-sided tape with a foam center was required to prevent the backboard from breaking. Because the prior art disclosed that a cushioning material was required, the prior art taught away from directly connecting the backboard to the frame with an adhesive.

In summary, neither the Examiner nor the cited references provide any teaching, suggestion, motivation or other reasoning to replace conventional double-sided tape with an elastomeric adhesive, much less the particular adhesive disclosed in Dow Corning Data Sheet Q3-6093, to bond

[44] *KSR* at 1395, citing *United States v. Adams*, 383 U.S. 39, 50-52.

an acrylic backboard and a basketball backboard frame. Because the Examiner has not established a *prima facie* case of obviousness of independent Claims 1, 14, 44, 46, 48, 50 and 52, Applicant requests that these Section 103(a) rejections be reversed by the Board.

Additionally, Applicant notes that the Examiner makes various statements such as "no unexpected or extraordinary results were obtained by applicant in using the silicone adhesive" or "it is not apparent that there is any criticality in the type of silicon adhesive used."[45] Applicant, however, specifically disclosed the type and characteristics of the adhesive used to bond the backboard and frame, and made clear that this adhesive was chosen for factors such as cushioning, adhesion, flexibility, controllable cure time, adaptability to automated assembly, etc.[46] These features cannot be simply ignored or brushed aside.[47] Moreover, using silicone adhesive to bond an acrylic backboard to a frame was, by itself, an unexpected and extraordinary result because the prior art taught double-sided tape with a foam center was required to provide the necessary cushioning, adhesion and flexibility between the brittle acrylic backboard and the rigid frame.

B. Issue 2: Whether Claims 1, 2, 5-18 and 44-53 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; Dow Corning Data Sheet Q3-6093; Office Notice taken by the Examiner and Ichemco.

Patentability depends on whether one of ordinary skill in art would have thought it obvious at the time of the invention to combine the individual elements in the matter claimed. Patentability

[45] *See* Final Office Action dated 02/09/2006 at pages 3-7.

[46] *See, e.g.*, '325 application, pages 2-4.

[47] *See Ex parte* Stevens, Appeal No. 2002-0980 at 8 (Bd. Pat. App. & Inter. March 27, 2003) [Paper No. 26].

does not depend on whether the invention can be broken into individual elements found in the prior art. Indeed, the courts have explained that "[i]f identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue."[48]

Section 103(a) demands more than simply identifying various claim elements in the prior art. In addition, Section 103(a) must be carefully applied to avoid hindsight, especially where the technology is relatively straight forward.[49] The courts have explained that otherwise the inventor's disclosure may be used "as a blueprint for piecing together the prior art to defeat patentability[.]"[50] Moreover, when unrelated references are cited (as in this case), the courts have emphasized that it is crucial the Examiner justify his obviousness conclusion by providing evidence why a person of ordinary skill would have combined the references to arrive at the claimed invention.[51] Legal determinations of obviousness must be based on evidence, not mere speculation or conjecture.

Here, the Examiner based the obviousness analysis on broad, conclusory statements without any evidence that one of ordinary skill in the art would have combined the cited references as recited in the claims. In particular, none of the cited references provide any teaching, suggestion, motivation or other reason to do the following: (1) replace double-sided adhesive tape with silicone adhesive to bond an acrylic backboard to a basketball backboard frame; (2) use silicone adhesive to bond an acrylic basketball backboard to a basketball backboard frame; or (3) use an adhesive that

[48] *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

[49] *See McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351 (Fed. Cir. 2001) ("When the art in question is relatively simple, as is the case here, the opportunity to judge by hindsight is particularly tempting.").

[50] *In re Dembiczak*, 175 F.3d 994, 994 (Fed. Cir. 1999).

[51] *See In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006) ("rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.").

"provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball."

The cited references are discussed in more detail below in connection with Claim 1. The cited references are also discussed in connection with the other pending claims. As set forth below, none of the cited references, either alone or in combination, teach, suggest or disclose each and every element of the pending claims.

1. "Applicant's Admitted Prior Art"

Citing the Background of the present application, the Examiner stated that the applicant admitted that the conventional "use of double sided tape to attach backboards to a frame structure is old."[52] Applicant acknowledges that double-sided tape with a foam center was used to secure acrylic backboards to backboard frames before Applicant's claimed invention because the double-sided tape with the foam core provided the required cushioning between the brittle acrylic backboard and the rigid frame. The double-sided tape also allowed the acrylic backboard to be securely connected to the rigid frame.

The claimed invention, however, is not directed towards using double-sided tape to secure acrylic backboards to backboard frames. In contrast, the claimed invention is directed towards, *inter alia*, using an elastomeric adhesive to bond the bonding surface of an acrylic frame and the bonding surface of a backboard from. For example, Claim 1 recites "a backboard frame structure having a

[52] Final Office Action dated 02/09/2006 at pages 2 (citing Specification at page 2, lines 3-17). During prosecution, Applicant further submitted an affidavit stating, *inter alia*, "Lifetime Products began manufacturing and selling acrylic basketball backboards in 1993 using two-sided foam tape to secure acrylic basketball backboards to a backboard frame." Ward Decl. ¶ 11, dated August 31, 2001; *see also* U.S. patent no. 5,839,982 issued to Hying, et

bonding surface; an acrylic backboard having a bonding surface; and a catalyzed elastomeric adhesive sandwiched between the frame bonding surface and the backboard bonding surface, wherein the elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball." Therefore, these conventional double-sided tape systems do **not** teach, suggest or disclose each and every element of Claim 1.

2. U.S. Patent No. 6,056,622 issued to Chung

Contrary to the Examiner's assertion, the *Chung* patent does **not** disclose that the "attachment of sports articles can be secured by suitable and conventional means" which includes using "silicone glue."[53] Instead, the passage of the *Chung* patent cited by the Examiner discloses:

> The **parts of ball part 60** are thereafter **secured together by suitable and conventional means, such as an adhesive like clear silicone glue with a chemical composition, methoxy polydimethylsiloxane, which is thereafter allowed to cure about one day and at room temperature**.[54]

In greater detail, the *Chung* patent discloses a ball with unpredictable bounce characteristics. In particular, the *Chung* patent states the ball part 60 comprises a ball of the high bouncing type, such as ball 30 of Figure 1.[55] The *Chung* patent explains:

> Ball part 30 comprises a **conventional high bouncing type ball** of the type that might also be utilized to play, practice or train with for **baseball**. Ball part 30 is made of an **elastic rubber** (silicone, thermoplastic elastomer, or the like) and is

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al., col. 2, lines 13-16.

[53] *See* Final Office Action dated 02/09/2006 at pages 2 (citing the *Chung* Patent, Col. 4, lines 29-30).

[54] U.S. Pat. No. 6,056,622 at col. 4, lines 28-32 (emphasis added).

[55] *Id.* at col. 3, lines 65-67.

referred to an high bouncing because when dropped from a height of 149 cm onto a marble floor, ball 30 will rebound at about 112 cm.[56]

Thus, the *Chung* patent discloses a conventional high bouncing type ball that may be used to play baseball and is constructed from elastic rubber. The *Chung* patent also discloses that parts of the elastic rubber, high bouncing type ball may be secured together using an adhesive like clear silicone glue, which is allowed to cure about one day and at room temperature. Therefore, the *Chung* patent teaches using an adhesive like clear silicone glue to secure together parts of an elastic rubber, high bouncing type ball.

In contrast, Claim 1 positively recites, *inter alia*, "a backboard frame structure having a bonding surface; an acrylic backboard having a bonding surface; and a catalyzed elastomeric adhesive sandwiched between the frame bonding surface and the backboard bonding surface, wherein the elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball." The *Chung* patent does **not** teach, suggest or disclose, for example, a catalyzed elastomeric adhesive sandwiched between a frame bonding surface and an acrylic backboard bonding surface. In addition, the *Chung* patent does **not** teach suggest or disclose an elastomeric adhesive that provides sufficient adhesion and flexibility to an acrylic backboard and frame structure bonding surface to be used in the game of basketball. Accordingly, the *Chung* patent does **not** teach, suggest or disclose each and every element of Claim 1.

3. U.S. Patent No. 3,809,401 issued to Hankele

[56] *Id.* at col. 3, lines 21-27 (emphasis added).

The *Hankele* patent discloses a hockey stick with a flexible net for catching and stopping a puck in both the forehand and backhand position.[57] In particular, the *Hankele* patent states that the hockey stick includes a handle 12, a blade 14 and a net 16. The *Hankele* patent also states "[a] rod 18 extends across the elbow between the handle 12 and the blade 14. Rod 18 has one end 20 that is secured in a hole adjacent the toe 22 of blade 14. A second end 24 of the rod is secured in a hole in handle 12. The ends 20 and 24 are secured in place by a pressed fit, or if desired, an adhesive can be used to additionally secure the ends in place."[58] The *Hankele* patent further states "[t]he net 16 has an upper edge that is secured to the rod 18. This securement is accomplished by forming loops 26 in the top strands of the net, and adhesively securing these loops to the rod 18."[59] Additionally, the *Hankele* patent states "[t]he net also includes free ends 28 which are secured in holes in the handle 12 and blade 14. The free ends 28 are adhesively secured in place within the holes."[60] The Hankele patent states "[t]he rod 18, the loops 26 and the ends 28 of the net 16 can be adhesively secured in place by any of the adhesives known in the art, such as epoxy or silicone adhesives."[61]

Accordingly, the *Hankele* patent discloses that adhesives known in its art, such as epoxy or silicone adhesives, may be used to: (1) additionally secure the ends of a rod 18 that are press fit into a hole in the toe of the blade and into a hole in the handle of a hockey stick; (2) adhesively secure loops 26 in the top strands of a net 16 to the rod 18; and (3) adhesively secure the free ends 28 of the

[57] U.S. Pat. No. 3,809,401 at col. 1, lines 41-43 ("It is another object of this invention to provide a hockey stick that includes a flexible net for catching and stopping a puck in both the forehand and backhand position.").

[58] *Id.* at col. 2, lines 12-18 (emphasis added).

[59] *Id.* at col. 2, lines 23-26 (emphasis added).

[60] *Id.* at col. 2 lines 26-29 (emphasis added).

[61] *Id.* at col. 2, lines 34-37 (emphasis added).

net 16 in holes in the handle 12 and blade 14. Therefore, the *Hankele* patent teaches using adhesives that are known in its art, such as epoxy or silicone adhesives, to further secure the ends of a rod into holes in a hockey stick, secure loops in the top of a net to a rod, and secure the free ends of the net into holes in the hockey stick.

In contrast, Claim 1 positively recites, *inter alia*, "a backboard frame structure having a bonding surface; an acrylic backboard having a bonding surface; and a catalyzed elastomeric adhesive sandwiched between the frame bonding surface and the backboard bonding surface, wherein the elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball." The *Hankele* patent does **not** teach, suggest or disclose, for example, a catalyzed elastomeric adhesive sandwiched between a frame bonding surface and an acrylic backboard bonding surface. In addition, the *Hankele* patent does **not** teach suggest or disclose an elastomeric adhesive that provides sufficient adhesion and flexibility to an acrylic backboard and frame structure bonding surface to be used in the game of basketball. Accordingly, the *Hankele* patent does **not** teach, suggest or disclose each and every element of Claim 1.

4. U.S. Patent Nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.

The *Skedeleski* patents are directed towards a safety tip of a water sport board, such as a surf board, for reducing or preventing injury to a user upon impact with the nose portion of the board. For example, the '316 patent states "a surfboard tip cover is provided which comprises a generally hollow, substantially V-shaped member which is made of a relatively soft, flexible and resilient

silicone material."[62] The '316 patent also states "[t]he tip cover is preferably constructed of a flexible and resilient liquid injected silicone."[63] Thus, the Skedeleski patents are directed towards a relatively soft, flexible and resilient silicone material that is used that is used as a safety device.

The *Skedeleski* patents also state that "[t]he tip cover is fixedly secured to the top portion of the board, for example, by silicone adhesive between the body portion and the extension portions and the parts of the board that they overlay."[64] The '316 patent states that "[i]t is preferable that any space left between the tip of the board and the apex of the cover be filled with the silicone adhesive to provide an even further cushioning effect."[65] Thus, the *Skedeleski* patents disclose using a silicone adhesive to attach the relatively soft, flexible and resilient silicone tip cover to the sharply pointed nose of a water sport board. The *Skedeleski* patents also disclose that any space between the tip of the board and the apex of the cover may be filled with silicone adhesive to provide an even further cushioning effect. Therefore, the *Skedeleski* patents disclose using a silicone adhesive to attach a relatively soft, flexible and resilient silicone material to the hard, sharp point of a water sports board as a safety device.

In contrast, Claim 1 positively recites, *inter alia*, "a backboard frame structure having a bonding surface; an acrylic backboard having a bonding surface; and a catalyzed elastomeric adhesive sandwiched between the frame bonding surface and the backboard bonding surface, wherein the elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic

[62] U.S. Pat. No. 4,792,316 at col. 1, lines 33-37 (emphasis added).

[63] *Id.* at col. 1, lines 50-51 (emphasis added).

[64] *Id.* at col. 1, lines 55-59 of the '314 patent.

[65] *Id.* at col. 2, lines 59-63.

backboard and frame structure bonding surface to be used in the game of basketball." The *Skedeleski* patents do **not** teach, suggest or disclose, for example, a catalyzed elastomeric adhesive sandwiched between a frame bonding surface and an acrylic backboard bonding surface. In addition, the *Skedeleski* patents do **not** teach suggest or disclose an elastomeric adhesive that provides sufficient adhesion and flexibility to an acrylic backboard and frame structure bonding surface to be used in the game of basketball. Accordingly, the *Skedeleski* patents do **not** teach, suggest or disclose each and every element of Claim 1.

Sub-Issue (a): **Whether Claims 1, 2, 5, 6 14 and 15 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; Dow Corning Data Sheet Q3-6093?**

None of the cited references, either alone or in combination, teach, suggest or disclose each and every limitation of Claims 1, 2, 5, 6, 14 or 15. For example, none of the cited references teach, suggest or disclose a catalyzed elastomeric adhesive sandwiched between the frame bonding surface and the backboard bonding surface or an elastomeric adhesive providing sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball. At least because none of the references teach, suggest or disclose a catalyzed elastomeric adhesive sandwiched between the frame bonding surface and the backboard bonding surface or the elastomeric adhesive providing sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball, Claims 1, 2, 5, 6, 14 and 15 are not unpatentable under Section 103(a).

Further, there is no evidence or reason why a person of ordinary skill would have combined the references to arrive at the claimed invention as outlined in the Section 103(a) rejection. In this case, there is no teaching, suggestion, motivation or other reason to combine a conventional double-sided tape basketball backboard system with an adhesive like clear silicone glue that is used to secure together parts of an elastic rubber, high bouncing type ball; an adhesive, such as epoxy or silicone adhesives, to further secure the ends of a rod into holes in a hockey stick, to secure loops in the top of a net to a rod, and to secure the free ends of the net into holes in the hockey stick; and/or a safety device that uses a silicone adhesive to attach a relatively soft, flexible and resilient silicone material to the hard, sharp point of a water sports board. Accordingly, Claims 1, 2, 5, 6, 14 and 15 are not unpatentable under Section 103(a) because there is no evidence supporting the combination of these references.

Furthermore, the cited references **teach away** from Claim 1 which positively recites "a catalyzed elastomeric adhesive that is sandwiched between the frame bonding surface and the backboard bonding surface, wherein the elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball." For example, the cited references disclose, *inter alia*, using: (1) an adhesive to secure together parts of an elastic rubber, high bouncing ball; (2) an adhesive to further secure the ends of a rod into holes in a hockey stick, to secure loops in the top of a net to a rod, and to secure the free ends of the net into holes in the hockey stick; and (3) an adhesive to attach a relatively soft, flexible and resilient silicone material to the hard, sharp point of a water sports board. Thus, the cited references teach using an adhesive to connect different materials, different purposes in different

environments than the claimed basketball backboard assembly. Therefore, because the cited references **teach away** from the claimed invention, this Section 103 (a) rejection should be reversed.

Moreover, the Examiner incorrectly assumes that all "sporting goods adhesion art" is analogous art.[66] The MPEP requires that a reference be analogous prior art for use in 35 U.S.C. § 103.[67] But the elastic rubber, high-bouncing ball of the *Chung* patent, the hockey stick of the *Hankele* patent and the surf boards of the *Skedeleski* patents are **not** analogous to the environment of attaching a basketball backboard to a frame. In fact, the Examiner does not provide any plausible theory or evidence as to why rubber balls, hockey sticks and surf boards are analogous to attaching basketball backboards to backboard frames. In essence, the Examiner argues that any use of an adhesive in assembling any device used in any sport is analogous to attaching a basketball backboard and a basketball frame -- simply because basketball is a sport. This goes too far. Therefore, because the cited references are not analogous art, this Section 103 (a) rejection is inappropriate and should be overturned.

a. Secondary Considerations Confirms Non-Obviousness of the Claimed Invention

In addition to the analysis above demonstrating that Claims 1, 2, 5, 6, 14 and 15 are not obvious, an analysis of the secondary considerations of nonobviousness confirms that the claimed invention is not obvious. As stated in the MPEP:

[66] *See* Final Office Action dated 02/09/2006 at page 3 ("The art of Chung, Hankele and Skedeleski et al clearly shows that those knowledgeable in the sporting goods adhesion art were aware of silicon adhesives…[.]").

[67] *See* MPEP § 2141.01(a).

> **Objective evidence or secondary considerations** such as unexpected results, commercial success, long felt need, failure of others, **copying by others**, licensing, and skepticism of experts are relevant to the issue of obviousness and **must be considered in every case** in which they are present. When evidence of any of these secondary considerations is submitted, **the examiner must evaluate the evidence**.[68]

Such secondary considerations may serve to "establish that [the] invention appearing to have been obvious in light of the prior art was not."[69] Here, the secondary consideration of **copying by others** confirms that the claimed invention is not obvious. In particular, Huffy Sports—a direct competitor of the assignee of this application (Lifetime Products)—used conventional double-sided tape to attach the backboard to a frame, and after Assignee Lifetime Products began selling the claimed invention, Huffy Sports copied the claimed invention.

(1). In 1999, after Six Years of Using the Conventional Double-Side Tape Systems, Assignee Lifetime Products Began Using the Claimed Invention

In his declaration, Mr. Jerry Ward explained that the Assignee Lifetime Products began using the conventional double-sided tape systems in 1993:

> Lifetime Products began manufacturing and selling acrylic basketball backboards in 1993 using two-sided foam tape to secure acrylic basketball backboards to a backboard frame.[70]

In his own declaration, Mr. S. Curtis Nye added that Lifetime Products began selling the claimed invention in October 1999:

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[68] *See* MPEP § 2141 at 2100-117 (8th ed. rev. 5 2006).

[69] *Alco Standard Corp. v. Tennessee Valley Authority*, 808 F.2d 1490, 1498 (Fed. Cir. 1986), *cert. dimissed*, 483 U.S. 1052 (1987).

[70] Ward Decl. ¶ 3 (August 31, 2001).

> In October 1999, Lifetime Products began selling acrylic basketball backboards fabricated with elastomeric adhesive to bond the acrylic backboard to the frame. Prior to this, Lifetime Products used double-sided tape to fabricate acrylic basketball backboards.[71]

(2). Competitor Huffy Sports Copied the Claimed Invention in 2001

Mr. Nye explained that "Huffy Sports utilized double-sided tape to bond the acrylic backboard to the frame."[72] Mr. Nye then explained that in 2001, Lifetime Products learned that Huffy had switched to using the claimed invention:

> Lifetime Products recently became aware of two commercially available acrylic basketball backboards manufactured by Huffy Sports, a division of Huffy Corporation, that utilize an elastomeric adhesive to bond the acrylic backboard to the frame. These are a metal frame unit, model number 9H909, and a blow molded frame unit, model 74069. Lifetime Products purchased these products for evaluation in July and August 2001. ***Prior to this time***, Huffy Sports utilized double-sided tape to bond the acrylic backboard to the frame.[73]

Thus, the claimed invention has been "copied by others" and this secondary consideration confirms that the claimed invention is not obvious.

(3). The Fact that Switching from the Conventional Double-Sided Tape System to the Claimed Invention Could Save up to 62.5% in Labor Costs Plus Millions of Dollars in Material Costs Further Demonstrates that the Claimed Invention Is Not Obvious.

Mr. Ward explained that a company, such as Lifetime Products, may reduce its labor costs by 62.5% by switching to the claimed invention:

[71] Nye Decl. ¶ 2 (August 31, 2001).

[72] Nye Decl. ¶ 3 (August 31, 2001).

[73] Nye Decl. ¶ 3 (August 31, 2001) (emphasis added).

> There are very significant labor savings when acrylic backboards are fabricated using catalyzed elastomeric adhesive. Using twelve (12) people in three shifts, about 2400 acrylic backboards may be fabricated per day using the catalyzed elastomeric adhesive process. In contrast, twenty-four (24) people in three shifts are required to fabricate 1800 acrylic backboards using the conventional two-sided tape system. This represents labor savings of about 62.5%.[74]

Mr. Ward further demonstrated how switching to the claimed invention could also save a company millions of dollars in materials costs:

> As Manager of Boards, Silk Screen, and Materials, I am aware of the materials and manufacturing costs associated with fabricating acrylic basketball backboards. **Lifetime products saves approximately $3 per backboard in material costs for each acrylic backboard fabricated using catalyzed elastomeric adhesive instead of conventional two-sided tape.** In the year 2000, Lifetime Products manufactured approximately 300,000 acrylic backboard basketball systems. **This represents a materials cost savings of about $900,000.** In the year 2001, Lifetime Products is projected to manufacture approximately 400,000 acrylic backboard basketball systems. **This represents a materials cost savings of about $1,200,000**.[75]

Thus, by switching from the conventional double-sided tape system to the claimed invention, a company could reduce their labor costs by 62.5% and save millions of dollars in materials costs.

Despite the significant advantages of the claimed invention, both Assignee Lifetime Products and competitor Huffy Sports used conventional double-sided tape systems for years because the prior art and common sense taught one of ordinary skill in the art that the cushioning, adhesion and flexibility of the double-sided tape with a foam core was required to attach the brittle acrylic backboard to the rigid frame. Therefore, these secondary considerations confirm that the claimed invention is not obvious. Importantly, these secondary considerations confirm that all the pending claims are not obvious in view of the cited references.

[74] Ward Decl. ¶ 11 (August 31, 2001).

[75] Ward Decl. ¶ 11 (August 31, 2001).

b. Prior Decision by the Board Held that the Claimed Invention was Not Obvious in View of Similar References

On March 27, 2003, the Board reversed the Examiner's previous final rejection of Claims 1, 2, and 5-18 under Section 103(a). The Examiner previously relied upon U.S. patent no. 5,839,982 issued to Hying, et al., and the Dow Corning adhesive to support his obviousness rejection.[76] The Board, however, found no teaching, suggestion or inference in cited prior references that one of ordinary skill in the art would have used the Dow Corning adhesive to attach the *Hying* patent's basketball backboard and basketball frame:

> Like appellant, **we find no teaching, suggestion, or inference** in the combined teachings of the applied references that would have led the ordinarily skilled artisan **to utilize the adhesive of Dow Corning to secure the acrylic backboard of Hying to the backboard frame**, as proposed by the examiner. The examiner's position to the effect that it would have been an "obvious choice" for one of ordinary skill in the art to use any readily available and suitable adhesive, and in particular the adhesive of Dow Corning, as a replacement for Hying's double-sided adhesive is without foundation in the absence of evidence supporting such contention. **More particularly, the examiner has not pointed out where the applied references teach that using Dow Corning's adhesive in Hying's environment would "prevent injury to the player," and/or precisely what "properties over wide temperature ranges" Dow Corning's adhesive possesses that the one of ordinary skill in the art would have found to be "desirable" in Hying's environment.**[77]

Thus, no reference taught or suggested the Dow Corning adhesive could be used in the *Hying* patent's particular "environment" of attaching a basketball backboard to its frame. Accordingly, the Board held it was not obvious to use the Dow Corning adhesive in the particular context of attaching a basketball backboard to a basketball frame.

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[76] *See Ex parte Stevens*, Appeal No. 2002-0980 at 4-5, 9 (Bd. Pat. App. & Inter. March 27, 2003) [Paper No. 26].

In this current appeal to the Board, the Examiner once again failed to provide any teaching, suggestion, inference or reason that the adhesive of the Dow Corning Data Sheet Q3-6093 should be combined with any of the other cited references to secure an acrylic backboard to a backboard frame. In addition, the Examiner again failed to point out where any of the cited references teach using the adhesive of the Dow Corning Data Sheet Q3-6093 in the environment of connecting an acrylic backboard to a backboard frame.

In the March 27, 2003 decision, the Board also stated that the *Hying* patent disclosed "a known prior basketball backboard construction wherein a double-sided adhesive layer 5 is used to secure an acrylic backboard 3 to a welded steel frame 1."[78] The Board held that it was not obvious to use any particular adhesive to attach a basketball backboard to a basketball frame. In particular, the Board stated:

> In a nutshell, **the examiner appears to take the position that it would have been obvious to try any number of prior art adhesives until one possibly arrived at a successful result where the prior art gives no indication of which parameters are critical and no direction as to which of many possible choices is likely to be successful**. However, **this is not the standard** of 35 U.S.C. § 103.[79]

In this case, the Examiner fails one more time to cite any evidence that teaches, suggests, discloses or provides any reason for using a particular adhesive in the relevant context of attaching a basketball backboard to a basketball frame. Further, the Examiner again does not cite any prior art that indicates the important parameters or direction in which to chose an adhesive in the environment of connecting an acrylic backboard to a backboard frame.

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[77] *See Ex Parte Stevens*, at 6-7 (emphasis added).

[78] *See Ex Parte Stevens*, at 4-5 (footnote omitted).

[79] *See Ex Parte Stevens*, at 6-7 (citations omitted) (emphasis added).

Thus, the previous reasoning of the Board applies all over again because the currently cited references do not teach, suggest, or disclose to one of ordinary skill in the art to attach a basketball backboard to a basketball frame as required by the claims. For example, although the Dow Corning datasheet states that its adhesive is "[d]eveloped for a variety of high technology bonding, sealing and encapsulating applications," the Dow Corning datasheet never teaches, suggests or discloses that is may be used to bond a basketball backboard to a basketball frame. In fact, the Dow Corning datasheet never even mentions the sport of basketball. Thus, as the Board has already decided, the Dow Corning datasheet does not provide any teaching, suggestion, or motivation for attaching a basketball backboard to a basketball frame, and it is not obvious to replace the double-sided tape that was conventionally used with the Dow Corning adhesive.[80] This reasoning of the Board not only applies to Claims 1, 2, and 5-18, but it also applies for similar reasons to Claims 44-53.

The Examiner also contends that Applicant has simply used an adhesive in the manufacturer's "recommended way."[81] The Examiner contends that "[i]f one were to follow this logic to its natural end, the sales representative for the acrylic adhesive should be added to the inventors of the application since he/she brought necessary knowledge to the inventive process."[82] The Office Action's assumption is false because the Dow Corning datasheet does not recommend using its adhesive to attach a basketball backboard and basketball frame. Moreover, the Board previously decided it was not obvious to use the adhesive disclosed in the Dow Corning datasheet to replace the known double-sided tape used to attach a backboard to a frame.

[80] *See Ex Parte Stevens*, at 6-7.

[81] *See* Final Office Action dated 02/09/2006 at page 8.

[82] *See* Final Office Action dated 02/09/2006 at page 8.

The Examiner further relies on impermissible hindsight to assert that the claimed invention is obvious. The Office Action states "applicant also admits that the use of double side tape was inadequate in that it was costly and time consuming."[83] The Office Action then reasons: "A workman in the art in view of this deficiency would have looked for other equivalent but better means of attachment in the adhesive art."[84] However, as explained by the Applicant in the application, **the double-side tape is deficient when compared to the Applicant's invention**.[85] The MPEP, however, prevents such hindsight analysis: "The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention."[86] Because the Office Action necessarily relies upon a hindsight comparison of the claimed invention to the prior art, Appellant requests that this Section 103(a) rejection be reversed by the Board.

Sub-Issue (b): **Whether Claims 7-13 and 16-18 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093 in view of Official Notice.**

Appellant submits that this Section 103(a) rejection should be withdrawn for at least same reasons discussed above with respect to Issue 1 and Issue 2, Sub-Issue (a) above. In addition, this rejection should be withdrawn because none of the cited references, either alone or in combination,

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[83] *See* Final Office Action dated 02/09/2006 at page 2.

[84] *See* Final Office Action dated 02/09/2006 at page 2.

[85] *cf.* Ward Decl. ¶ 11 (August 31, 2001) (discussing material cost savings); Ward Decl. ¶ 12 (August 31, 2001) (discuss labor time/cost savings).

[86] MPEP § 2141.

teach, suggest or disclose each and every limitation of Claims 7-13 and 16-18. For example, the Office Action fails to provide any teaching, suggestion, motivation or reasoning to use bond gap spacers in the context of basketball backboards and basketball backboard frames. *See* Claims 7 and 14. Moreover, this rejection should be withdrawn because the Office Action fails to cite any reference providing a teaching, suggestion, motivation or reason to use the particularly claimed bond gap spacers in this context. *See* Claims 8-10 and 16-18. In addition, the Office Action fails to cite any reference providing a teaching, suggestion, motivation or reason to use the claimed "catalyzed elastomeric adhesive" of Claim 1 in contexts where "the backboard frame structure is constructed from metal" (Claim 11); where "the backboard frame structure is painted metal" (Claim 12); or where "the backboard bonding surface contains a printed image" (Claim 13). In sum, this Section 103(a) rejection should be reversed by the Board.

Sub-Issue (c): **Whether Claims 44 and 45 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.**

Appellant submits that this Section 103(a) rejection should be withdrawn for at least same reasons discussed above with respect to Issue 1 and Issue 2, Sub-Issue (a) above. In addition, this rejection should be withdrawn because none of the cited references, either alone or in combination, teach, suggest or disclose each and every limitation of Claims 44 and 45. For example, the Office Action fails to provide any teaching, suggestion, motivation or reasoning to use "a catalyzed silicone-based adhesive" in the context of connecting basketball backboards and basketball

backboard frames (Claim 44). Moreover, the Office Action fails to provide a teaching, suggestion, motivation or reason to use the "catalyzed silicone-based adhesive" of Claim 44 where "the basketball backboard frame is constructed from metal" as recited in Claim 45. Thus, this Section 103(a) rejection should be reversed by the Board.

Sub-Issue (d): **Whether Claims 46 and 47 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.**

Appellant submits that this Section 103(a) rejection should be withdrawn for at least same reasons discussed above with respect to Issue 1 and Issue 2, Sub-Issue (a) above. In addition, this rejection should be withdrawn because none of the cited references, either alone or in combination, teach, suggest or disclose each and every limitation of Claims 46 and 47. For example, the Office Action fails to provide a teaching, suggestion, motivation or reasons to use "a catalyzed elastomeric adhesive" in the context of connecting basketball backboards and basketball backboard frames (Claim 46). Moreover, the Office Action fails to cite any reference providing a teaching, suggestion, motivation or reason to use the "catalyzed elastomeric adhesive" of Claim 46 where "the basketball backboard is constructed from acrylic" as recited in Claim 47. Accordingly, this Section 103(a) rejection should be reversed by the Board.

Sub-Issue (e): **Whether Claims 48 and 49 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to**

Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.

Appellant submits that this Section 103(a) rejection should be withdrawn for at least same reasons discussed above with respect to Issue 1 and Issue 2, Sub-Issue (a) above. In addition, this rejection should be withdrawn because none of the cited references, either alone or in combination, teach, suggest or disclose each and every limitation of Claims 48 and 49. For example, the Office Action fails to provide a teaching, suggestion, motivation or reason to use "a catalyzed elastromeric adhesive" in the context of connecting basketball backboards and basketball backboard frames (Claim 48). Moreover, the Office Action fails to cite any reference providing a teaching, suggestion motivation or reasoning to use the "catalyzed elastromeric adhesive" of Claim 48 where "the basketball backboard is constructed from acrylic" as recited in Claim 49. Consequently, this Section 103(a) rejection should be reversed by the Board.

Sub-Issue (f): **Whether Claims 50 and 51 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.**

Appellant submits that this Section 103(a) rejection should be withdrawn for at least same reasons discussed above with respect to Issue 1 and Issue 2, Sub-Issue (a) above. In addition, this rejection should be withdrawn because none of the cited references, either alone or in combination, teach, suggest or disclose each and every limitation of Claims 50 and 51. For example, the Office Action fails to provide a teaching, suggestion, motivation or reason to use "a silicone-based adhesive" in the context of connecting basketball backboards and basketball backboard frames

(Claim 50). Moreover, the Office Action fails to cite any reference providing a teaching, suggestion, motivation or reasoning to use the "silicone-based adhesive" of Claim 50 where "the basketball backboard is constructed from acrylic" as recited in Claim 51. In sum, this Section 103(a) rejection should be reversed by the Board.

Sub-Issue (g): **Whether Claims 52 and 53 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of United States patent no. 6,056,622 issued to Chung; U.S. patent no. 3,809,401 issued to Hankele; U.S. patent nos. 4,792,316 and 4,955,314 issued to Skedeleski, et al.; and Dow Corning Data Sheet Q3-6093.**

Appellant submits that this Section 103(a) rejection should be withdrawn for at least same reasons discussed above with respect to Issue 1 and Issue 2, Sub-Issue (a) above. In addition, this rejection should be withdrawn because none of the cited references, either alone or in combination, teach, suggest or disclose each and every limitation of Claims 52 and 53. For example, the Office Action fails to provide a teaching, suggestion, motivation or reason to use "a silicone-based adhesive" in the context of connecting basketball backboards and basketball backboard frames (Claim 52). Moreover, the Office Action fails to cite any reference providing a teaching, suggestion, motivation or reasoning to use the "silicone-based adhesive" of Claim 52 where "the basketball backboard is constructed from acrylic" as recited in Claim 53. In addition, the Office Action fails to provide a teaching, suggestion, motivation or reason to use bond gap spacers in the context of basketball backboards and basketball backboard frames. *See* Claim 52. Therefore, Claims 52 and 53 are not unpatentable under Section 103(a) and this rejection by the examiner should be reversed by the Board.

Sub-Issue (h): **Whether Claims 50-53 are unpatentable under 35 U.S.C. § 103(a) over applicant's admitted prior art in view of Ichemco.**

Appellant submits that this Section 103(a) rejection should be withdrawn for at least same reasons discussed above with respect to Issue 1 and Issue 2, Sub-Issue (a) above. In addition, this rejection should be withdrawn because none of the cited references, either alone or in combination, teach, suggest or disclose each and every limitation of Claims 50-53. For example, the Office Action fails to provide a teaching, suggestion or motivation to use "a silicone-based adhesive" in the context of connecting basketball backboards and basketball backboard frames. *See* Claims 50 and 52. Moreover, the Office Action fails to cite any reference providing a teaching, suggestion, motivation or reasoning to use the "silicone-based adhesive" of Claims 50 and 52 where "the basketball backboard is constructed from acrylic" as recited in Claims 51 and 53. In addition, the Office Action fails to provide a teaching, suggestion, motivation or reason to use bond gap spacers in the context of basketball backboards and basketball backboard frames. See Claim 52. Therefore, Claims 50-53 are patentable under Section 103(a) and this rejection by the examiner should be reversed by the Board.

CONCLUSION

As a final point, Appellant notes that while not every contention, allegation and characterization of the Examiner set forth in the Final Office Action, or raised at any other time during the prosecution of this case, was specifically addressed herein, the lack of remarks concerning any particular contention, allegation or characterization advanced by the Examiner is not intended, and should not be construed, to constitute an admission or concession by Appellant. In contrast, Applicant focused on the major points to refute this obviousness rejection under Section 103.

For at least the reasons discussed herein, Appellant respectfully submits that the Examiner's rejections of the claims are not well taken. Accordingly, Appellant requests that the Board reverse the Examiner's rejections of Claims 1, 2, 5-18 and 44-53.

The Commissioner is authorized to charge payment of any additional fees associated with this communication, which have not otherwise been paid, to Deposit Account No. 23-3178. If any additional extension of time is required, which have not otherwise been requested, please consider this a petition therefore and charge any additional fees that may be required to Deposit Account No. 23-3178.

Respectfully submitted,

Dated: February 28, 2008

By: /Richard C. Gilmore/
Richard C. Gilmore
Registration No. 37,335
Attorney of Record

Customer No. 22,913

WORKMAN NYDEGGER

Re. : Amended Appeal Brief
Appl. No. : 09/228,325
Filed : January 11, 1999

1000 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111
Telephone: (801) 533-9800
Facsimile: (801) 328-1707
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G:\WPDOCS3\RCG\Lifetime Products Inc\185 Amended Appeal Brief filed 02-28-08.doc

VIII. Claims Appendix

1. A basketball backboard assembly that is sized and configured for playing the game of basketball, the basketball backboard assembly comprising:

a basketball backboard frame structure having a bonding surface;

an acrylic basketball backboard having a bonding surface; and

a catalyzed elastomeric adhesive sandwiched between the frame bonding surface and the backboard bonding surface, wherein the elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surface to be used in the game of basketball.

2. A basketball backboard assembly as in Claim 1, wherein the elastomeric adhesive has a bond gap in the range from about 2 to 2.5 mm (0.08 to 0.1 inch).

3. (Cancelled)

4. (Cancelled)

5. A basketball backboard assembly as in Claim 1, wherein the elastomeric adhesive is a two-part catalyzed adhesive in which the two parts are combined in a ratio to provide a set time in the range from about 7 to 15 minutes.

6. A basketball backboard assembly as in Claim 1, wherein the elastomeric adhesive is a two-part catalyzed adhesive in which the two parts are combined in a ratio to provide a set time in the range from about 5 minutes to 1 hour.

7. A basketball backboard assembly as in Claim 1, further comprising one or more bond gap spacers located between the frame bonding surface and the backboard bonding surface to provide a defined bond gap.

8. A basketball backboard assembly as in Claim 7, wherein the one or more bond gap spacers comprise spherical beads.

9. A basketball backboard assembly as in Claim 7, wherein the one or more bond gap spacers comprise glass microspheres.

10. A basketball backboard assembly as in Claim 7, wherein the one or more bond gap spacers comprise glass microspheres that have a diameter in the range from about 2 to 2.5 mm (0.08 to 0.1 inch).

11. A basketball backboard assembly as in Claim 1, wherein the backboard frame structure is constructed from metal.

12. A basketball backboard assembly as in Claim 1, wherein the backboard frame structure is painted metal.

13. A basketball backboard assembly as in Claim 1, wherein the backboard bonding surface contains a printed image.

14. A basketball backboard assembly that is sized and configured for playing the game of basketball, the basketball backboard assembly comprising:

a metal basketball backboard frame structure having a bonding surface;

an acrylic basketball backboard having a bonding surface;

a catalyzed silicone adhesive sandwiched between the frame bonding surface and the backboard bonding surface, wherein the silicone adhesive is configured to provide a set time in the range from about 5 minutes to 1 hour, wherein the silicone adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surfaces to be used in the game of basketball; and

one or more bond gap spacers located between the frame bonding surface and the backboard bonding surface to provide the bond gap.

15. A basketball backboard assembly as in Claim 14, wherein the silicone adhesive is configured to provide a set time in the range from about 7 to 15 minutes.

16. A basketball backboard assembly as in Claim 14, wherein the one or more bond gap spacers comprise spherical beads.

17. A basketball backboard assembly as in Claim 14, wherein the one or more bond gap spacers comprise glass microspheres.

18. A basketball backboard assembly as in Claim 14, wherein the one or more bond gap spacers comprise glass microspheres that have a diameter in the range from about 2 to 2.5 mm (0.08 to 0.1 inch).

Claims 19-43 (Cancelled).

44. A basketball backboard assembly comprising:

a basketball backboard frame;

a basketball backboard constructed from acrylic; and

a catalyzed silicone-based adhesive connecting the basketball backboard and the basketball backboard frame and positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.

45. A basketball backboard assembly as in Claim 44, wherein the basketball backboard frame is constructed from metal.

46. A basketball backboard assembly comprising:

a basketball backboard frame;

a basketball backboard; and

a catalyzed elastromeric adhesive connecting the basketball backboard and the basketball backboard frame and positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.

47. A basketball backboard assembly as in Claim 46, wherein the basketball backboard is constructed from acrylic.

48. A basketball backboard assembly comprising:

a basketball backboard frame;

a basketball backboard; and

a catalyzed elastromeric adhesive connecting the basketball backboard and the basketball backboard frame and positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.

49. A basketball backboard assembly as in Claim 48, wherein the basketball backboard is constructed from acrylic.

50. A basketball backboard assembly comprising:

a basketball backboard frame;

a basketball backboard; and

a silicone-based adhesive connecting the basketball backboard and the basketball backboard frame and positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame.

51. A basketball backboard assembly as in Claim 50, wherein the basketball backboard is constructed from acrylic.

52. A basketball backboard assembly comprising:

a basketball backboard frame;

a basketball backboard;

a silicone-based adhesive connecting the basketball backboard and the basketball backboard frame and positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame; and

one or more bond gap spacers positioned between at least a portion of the basketball backboard and at least a portion of the basketball backboard frame to provide a defined bond gap.

53. A basketball backboard assembly as in Claim 52, wherein the basketball backboard is

constructed from acrylic.

IX. Evidence Appendix

The Declaration of Jerry Ward under 37 C.F.R. 1.132 and the Declaration of S. Curtis Nye under 37 C.F.R. 1.132 were entered by the Examiner in connection with an Amendment and Response to Final Office Action, which Applicant filed on September 11, 2001. These declarations were subsequently cited in prior appeal Appeal No. 2002-0980 and, most recently, the Amendment and Response to Office Action filed on December 1, 2005.

PATENT
Docket No. 1002.2.72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Larry Stevens	)
		)
Serial No.:	09/228,325	)
		) Group Art
Filed:	January 11, 1999	) Unit: 3711
		)
For:	SYSTEM AND METHOD FOR BONDING AN ACRYLIC SURFACE TO A FRAME	)
		)
Examiner:	Michael Chambers	)

DECLARATION OF JERRY WARD UNDER 37 C.F.R 1.132

Assistant Commissioner
for Patents
Washington, D.C. 20231

Dear Sir:

I, Jerry Ward, hereby declare:

1. I am the Manager of Boards, Silk Screen, and Materials at Lifetime Products, Inc. (hereinafter "Lifetime Products"). I have been employed by Lifetime Products for about 6.5 years. During that time I have gained experience relating to purchasing of materials, welding, assembly, and testing of basketball backboards. I am familiar with all aspects of Lifetime Products' manufacture and testing of acrylic basketball backboards.

2. Lifetime Products currently manufactures acrylic basketball backboards by bonding an acrylic backboard to a backboard frame structure using a catalyzed elastomeric adhesive sandwiched between the frame and the backboard. This procedure is disclosed in the above-identified patent application.

3. Lifetime Products began manufacturing and selling acrylic basketball backboards in 1993 using two-sided foam tape to secure acrylic basketball backboards to a backboard frame. Although two-sided tape performs adequately at typical outdoor playing temperatures, some backboard failures were observed when used under cold, winter-like conditions. Lifetime

Products developed the new catalyzed elastomeric adhesive bonding system to efficiently fabricate acrylic basketball backboards that are more durable in cold conditions.

4. A basketball impact test was developed by Lifetime Products to determine the durability of acrylic backboards. According to the basketball impact test, basketballs, inflated to a pressure of 8 psi, are launched at the backboard assembly at a throwing speed of 35 mph (miles per hour). A radar gun is used to monitor the throwing speed.

5. In the basketball impact test, 75 balls are thrown at the backboard at ambient temperature. The balls are thrown over the entire backboard surface as follows:

10 balls - left edge of the board over the steel frame area;
10 balls - left middle support over the steel frame area;
10 balls - left target window area;
10 balls - right target window area;
10 balls - right edge of the board over the steel frame area;
10 balls - right middle support over the steel frame area;
10 balls - center target window area;
5 balls - random areas of the backboard.

6. After each ball impact, the backboard was examined for failure. Failure is defined as backboard (acrylic cracking) or frame damage, adhesive separation from the metal frame, adhesive separation from the acrylic backboard, and cohesive failure where the tape or adhesive splits down the middle.

7. Each backboard that passed 75 hits at ambient temperature was placed inside a freezer for a minimum of two hours. The backboard was removed from the freezer and quickly mounted for further impact testing. An infrared thermometer monitored the temperature of the board until it reached 30 degrees F. Whereupon, basketballs were thrown at the backboard at 35 mph as described above.

8. At ambient temperatures, backboards fabricated with catalyzed elastomeric adhesive performed as good as or better than backboards fabricated using 3M tape and Norton tape.

9. Backboards fabricated using 3M tape failed after an average of 13.8 hits under cold temperature conditions. Backboards fabricated using Norton tape failed after an average of 47.4 hits under cold temperature conditions. Backboards fabricated using a catalyzed elastomeric adhesive failed after an average of 71.6 hits under cold temperature conditions.

10. The basketball impact test results mentioned above, combined with the torque deflection test described in the specification at pages 9 and 10, demonstrate that backboards

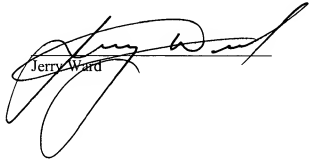
fabricated using catalyzed elastomeric adhesive possess overall better adhesion, flexibility, and durability than conventional double-sided tape.

11. As Manager of Boards, Silk Screen, and Materials, I am aware of the materials and manufacturing costs associated with fabricating acrylic basketball backboards. Lifetime Products saves approximately $3 per backboard in materials costs for each acrylic backboard fabricated using catalyzed elastomeric adhesive instead of conventional two-sided tape. In the year 2000, Lifetime Products manufactured approximately 300,000 acrylic backboard basketball systems. This represents a materials cost savings of about $900,000. In the year 2001, Lifetime Products is projected to manufacture approximately 400,000 acrylic backboard basketball systems. This represents a materials cost savings of about $1,200,000.

12. There are very significant labor savings when acrylic backboards are fabricated using catalyzed elastomeric adhesive. Using twelve (12) people in three shifts, about 2400 acrylic backboards may be fabricated per day using the catalyzed elastomeric adhesive process. In contrast, twenty-four (24) people in three shifts are required to fabricate 1800 acrylic backboards using the conventional two-sided tape system. This represents labor savings of about 62.5%.

13. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated this 31 day of August, 2001



Jerry Ward

#2 Declaration 9-25-01

52 1,132

PATENT
Docket No. 1002.2.72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Larry Stevens
Serial No.:	09/228,325
Filed:	January 11, 1999
For:	SYSTEM AND METHOD FOR BONDING AN ACRYLIC SURFACE TO A FRAME
Examiner:	Michael Chambers
Group Art Unit:	3710

DECLARATION OF S. CURTIS NYE UNDER 37 C.F.R 1.132

Assistant Commissioner
for Patents
Washington, D.C. 20231

Dear Sir:

I, S. Curtis Nye, hereby declare:

1. I am a Research Technician at Lifetime Products, Inc. (hereinafter "Lifetime Products"). I have been employed by Lifetime Products for about 5.5 years. During the past two years, I have worked on the research and development of basketball backboard systems.

2. In October 1999, Lifetime Products began selling acrylic basketball backboards fabricated with elastomeric adhesive to bond the acrylic backboard to the frame. Prior to this time, Lifetime Products used double-sided tape to fabricate acrylic basketball backboards.

3. Lifetime Products recently became aware of two commercially available acrylic basketball backboards manufactured by Huffy Sports, a division of Huffy Corporation, that utilize an elastomeric adhesive to bond the acrylic backboard to the frame. These are a metal frame unit, model number 9H909, and a blow molded frame unit, model number 74069. Lifetime Products purchased these products for evaluation in July and August 2001. Prior to this time, Huffy Sports utilized double-sided tape to bond the acrylic backboard to the frame.

4. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that

these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated this 10 day of September, 2001

S. Curtis Nye

X. Related Proceedings Appendix

This application, serial no. 09/228,325, was the subject of Appeal No. 2002-0980, which was heard on February 19, 2003 and a decision was rendered on March 27, 2003. The Board reversed the decision of the examiner finally rejecting the appealed claims.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte LARRY STEVENS

Appeal No. 2002-0980
Application No. 09/228,325

HEARD: February 19, 2003

Before ABRAMS, STAAB, and NASE, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1, 2 and 4-18, all the claims currently pending in the application.

The Invention

Appellant's invention pertains to a basketball backboard assembly. As explained on page 2 of appellant's specification, it is known in the art to use a two-sided tape having a foam core to secure an acrylic backboard to a backboard frame assembly. Appellant

asserts, however, that the use of two-sided tape is not altogether satisfactory because it is time and labor intensive. In an effort to resolve this problem, appellant utilizes a catalyzed elastomeric adhesive in place of the conventional two-sided tape. According to appellant (specification, page 3), the application of catalyzed elastomeric adhesive may be automated and performed by commercially available robotic equipment, thereby improving the efficiency and cost of assembly, while at the same time allowing the cure time to be customized to provide an optimum time set.

Claim 1 is exemplary of the appealed subject matter, and reads as follows (with emphasis added):

1. A basketball backboard assembly sized and configured for playing the game of basketball comprising:

a backboard frame structure having a bonding surface;

an acrylic backboard having a bonding surface; and

a *catalyzed elastomeric adhesive* sandwiched between the frame bonding surface and the backboard bonding surface, wherein the elastomeric adhesive provides sufficient adhesion and flexibility to the acrylic backboard and frame structure bonding surfaces to be used in the game of basketball.

LJS/lp

The Prior Art

The following references have been cited by the examiner as evidence of obviousness:[1,2]

Nunes[3]	5,677,896	Oct. 14, 1997
Hying et al. (Hying)	5,839,982	Nov. 24, 1998

Information About Specialty Materials for High Technology Applications, Dow Corning® Q3-6093 Silicone Adhesive, copyright 1987 (hereinafter, Dow Corning)[4]

3M™ Microspheres Performance Enhancements (http://www.3m.com/market/industrial/additives/perfen_1.html) and 3M™ Microspheres Application-Market Matrix (http://www.3m.com/market/industrial/additives/appguide.html) (collectively, 3M)

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[1]The publication date of the Dow Corning and 3M references has not been established; however, appellant does not dispute that they are prior art with respect to the claimed invention.

[2]The list of references relied upon in the examiner's answer also included US Patent 4,951,179 to Machida. In that this reference is not included in the statement of either of the examiner's rejections, its listing is presumed to be in error.

[3]This reference apparently was inadvertently omitted from the list of references relied upon on page 2 of the answer.

[4]Although the list of references relied upon on page 2 of the answer identifies this reference as "GE data sheet," it is clear from the explanation of the rejections in the final rejection and answer that the reference intended is the noted Dow Corning publication. In any event, whether the reference intended is Dow Corning or one of the several General Electric publication of record in this application, our decision in this appeal would be the same. This is so because the Dow Corning and General Electric publications are cited for essentially the same purpose, namely, to establish that catalyzed elastomeric silicone adhesives were known in the art at the time of appellant's invention, a fact acknowledged by appellant on page 5 of the specification.

LJS/lp

The Rejections

Claim 1 stands rejected 35 U.S.C. § 103 as being unpatentable over Hying in view of Dow Corning.

Claims 2 and 4-18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hying in view of Dow Corning and further in view of Nunes and 3M.

Reference is made to appellant's main and briefs (Paper Nos. 16 and 20) and to the examiner's final rejection and answer (Paper Nos. 9 and 17) for the respective positions of appellant and the examiner regarding the merits of these rejections. Appellant also relies upon the declaration of Jerry Ward and the declaration of S. Curtis Nye in support of the position that the appealed claims are patentable over the applied references.

The Examiner's Position

Looking first at the rejection of claim 1, Hying pertains, in pertinent part, to a basketball backboard assembly comprising a backboard frame structure, and an acrylic backboard supported thereon. In the background section of the specification, Hying describes at column 1, lines 10-35, a known prior basketball backboard construction wherein a double-sided adhesive layer 5 is used to secure an acrylic backboard 3 to a

welded steel frame 1.[5] According to Hying, this type of backboard construction suffers from a number of disadvantages, including insufficient strength of the adhesive to retain the acrylic backboard against the frame (column 2, lines 27-29) and exposure of the edges of the acrylic backboard, which edges are susceptible to cracking when struck by a ball or other object (column 2, lines 32-36). Hying's solution is to replace the double-sided adhesive with an extruded plastic channel member 13 for connecting the backboard to the backboard frame. In addition to connecting the backboard to the backboard frame, the channel member envelopes the backboard edges to thereby protect them from damage.

In rejecting claim 1, it appears that the starting point of the examiner's rejection is Hying's prior art double-sided adhesive layer backboard construction. The examiner concedes that this prior art construction does not use a catalyzed elastomeric adhesive to secure the backboard to the backboard frame as set forth in claim 1. The examiner relies on Dow Corning for a teaching that catalyzed elastomeric adhesives were known *per se* at the time of appellant's invention. According to the examiner, it would have been obvious to one of ordinary skill in the art to have employed the elastomeric adhesive of the Dow Corning to attach the backboard of Hying to the frame, the motivation being "to prevent injury to the players if the attachment means failed and to take advantage of their

---

[5]This known basketball backboard construction would appear to correspond to the prior art basketball backboard described on page 2, lines 3-8, of appellant's specification that the present invention seeks to improve upon.

desirable properties over wide temperature ranges" (answer, page 3). In the "Response to Arguments" section of the answer, the examiner further states:

> [T]he Hying patent notes that [it] is old to use adhesives to bond the backboard to the support structure. The adhesive claimed is common and well known. It would be an obvious choice for one of ordinary skill in the art to use a readily available adhesive in the attachment of the backboard to the support. [Answer, page 7.]

Discussion

The initial burden is on the examiner to present evidence from which it can be concluded that a *prima facie* case of obviousness has been established. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). Once a *prima facie* case has been established, the burden of going forward shifts to appellant. In the present case, it is our view that the examiner has not met his initial burden. Our reasons follow.

Like appellant, we find no teaching, suggestion, or inference in the combined teachings of the applied references that would have led the ordinarily skilled artisan to utilize the adhesive of Dow Corning to secure the acrylic backboard of Hying to the

LJS/lp

backboard frame, as proposed by the examiner. The examiner's position to the effect that it would have been an "obvious choice" for one of ordinary skill in the art to use any readily available and suitable adhesive, and in particular the adhesive of Dow Corning, as a replacement for Hying's double-sided adhesive is without foundation in the absence of evidence supporting such a contention. More particularly, the examiner has not pointed out where the applied references teach that using Dow Corning's adhesive in Hying's environment would "prevent injury to the player," and/or precisely what "properties over wide temperature ranges" Dow Corning's adhesive possesses that the one of ordinary skill in the art would have found to be "desirable" in Hying's environment. In a nutshell, the examiner appears to take the position that it would have been obvious to try any number of prior art adhesives until one possibly arrived at a successful result where the prior art gives no indication of which parameters are critical and no direction as to which of many possible choices is likely to be successful. However, this not the standard of 35 U.S.C. § 103. *See In re Goodwin*, 576 F.2d 375, 377, 198 USPQ 1, 3 (CCPA 1978); *In re Antonie*, 559 F.2d 618, 620, 195 USPQ 6, 8-9 (CCPA 1977); *In re Tomlinson*, 363 F.2d 928, 931, 150 USPQ 623, 626 (CCPA 1966).

LJS/lp

We also note that at various places in the answer (e.g., paragraph spanning pages 3-4) the examiner indicates that the particular adhesive utilized by appellant would have been an obvious matter of design choice in the absence of a showing of criticality. We do not agree with this position. In specifically disclosing the type of adhesive used in the invention, appellant has made clear that this adhesive has been chosen for its excellent adhesive and flexibility, controllable cure time, and adaptability to automated assembly (specification, pages 2-4). Far from being matters of obvious design choice, these matters are at the very heart of appellant's disclosed and claimed invention. The examiner cannot simply brush such features aside.

Under these circumstances, we conclude that the examiner has not established a *prima facie* case of obviousness of claim 1.

Turning to the rejection of claims 2 and 4-18 as being unpatentable over Hying in view of Dow Corning and further in view of Nunes and 3M, we have considered the Nunes and 3M additionally applied in this rejection but find nothing therein that makes up for the deficiencies of Hying and Dow Corning discussed above. Accordingly, the examiner also has not established a *prima facie* case of obviousness of these claims.

Regarding the declarations of Jerry Ward and S. Curtis Nye proffered by appellant in support of the patentability of the appealed claims, in that the examiner has not

established a *prima facie* case of obviousness, it is unnecessary for us to consider appellant's evidence of nonobviousness.

Conclusion

The rejection of claim 1 as being unpatentable over Hying in view of Dow Corning is reversed.

The rejection of claims 2 and 4-18 as being unpatentable over Hying in view of Dow Corning, Nunes and 3M is reversed.

The decision of the examiner finally rejecting the appealed claims is reversed.

REVERSED

NEAL E. ABRAMS
Administrative Patent Judge

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